

Subject index to Volume 21

A

- Adenoviral vector, targeted apoequorin delivered by an, measurement of changes in sarcoplasmic reticulum [Ca^{2+}] in rat tail artery with, 69
- Angiotensin II, oscillatory Cl^- current induced by, in rat pulmonary arterial myocytes: Ca^{2+} dependence and physiological implication 421
- Anoxia and ischemia (cerebrocortical), a multiparametric study of. Can the Indo-1 fluorescence approach measure brain intracellular calcium *in vivo*?, 115
- Apoequorin delivered by an adenoviral vector, measurement of changes in sarcoplasmic reticulum [Ca^{2+}] in rat tail artery with targeted, 69
- Astrocyte cell line U373-MG, determination of *in situ* dissociation constant for Fura-2 and quantitation of background fluorescence in, 233
- ATP (extracellular) protein kinase C induced calcium influx and sustained enhancement of ciliary beating by, 103
- ATP, gating of the skeletal calcium release channel by, is inhibited by protein phosphatase 1 but not by Mg^{2+} , 283
- ATP, synchronized Ca^{2+} oscillations induced in Madin Darby canine kidney cells by bradykinin and thrombin but not by, 195
- ATP-evoked Ca^{2+} oscillations in isolated human granulosa-luteal cells, mechanisms involved in, 365

B

- BAPTA, intracellular calcium chelator, protects cells against toxic calcium overload but also alters physiological calcium responses, 453
- Bergmann glial cells *in situ* express endothelin_B receptors linked to cytoplasmic calcium signals, 409
- β -adrenoceptors and V_{1A} -receptors in rat CCD, functional evidence for the regulation of cytosolic Ca^{2+} activity via, 163
- Bradykinin and thrombin (but not by ATP), synchronized Ca^{2+} oscillations induced in Madin Darby canine kidney cells by, 195
- Bradykinin regulates the histamine-induced Ca^{2+} mobilization via protein kinase C activation in human gingival fibroblasts, 345
- Bronchial (human) epithelial cell line, down regulation (rapid) of Ca^{2+} signals induced by endothelin-1 in a, 221

C

- Calcium-ATPase, analysis of plasma membrane, expression in control and SV40-transformed human fibroblasts, 53
- Calcium dependence and physiological implication, oscillatory Cl^- current induced by angiotensin II in rat pulmonary arterial myocytes, 421
- Calcium efflux (mitochondrial), inhibition of, by clonazepam in intact single rat cardiomyocytes and effects on NADH production, 321

- Calcium exchange, effects of temperature upon, in intact cultured cardiac myocytes, 263
- Calcium indicators *in situ*, a novel use for a carbodiimide compound for the fixation of fluorescent and non-fluorescent, following physiological experiment, 175
- Calcium oscillations (synchronized) induced in Madin Darby canine kidney cells by bradykinin and thrombin but not by ATP, 195
- Calcium oscillations in isolated human granulosa-luteal cells, mechanisms involved in ATP-evoked, 365
- Calcium oscillations, inositol-phosphoglycan inhibits, in hepatocytes by reducing calcium entry, 125
- Calcium pump (plasmalemmal), use of La^{3+} to distinguish activity of the, from $\text{Na}^+/\text{Ca}^{2+}$ exchange in arterial myocytes, 31
- Calcium (toxic) overload, intracellular calcium chelator BAPTA protects cells against, but also alters physiological calcium responses, 453
- Calcium pump, co-ordinated regulation of the plasma membrane, and the sarco(endo)plasmic reticular calcium pump gene expression by Ca^{2+} , 399
- Calcium pumping activity, differences in, between subpopulations of human red cells, 353
- Calcium release channel (skeletal), gating of the, by ATP is inhibited by protein phosphatase 1 but not by Mg^{2+} , 283
- Calcium signaling and proliferation responses, enhancement of, in activated human T lymphocytes. Inhibitory effects of K^+ channel block by charybdotoxin depend on the T cell activation state, 1
- Calcium signaling, norepinephrine-mediated, is altered in vascular smooth muscle of diabetic rat, 143
- Calcium signaling, temperature dependence of agonist-stimulated, in cultured endothelial cells, 43
- Calcium signals induced by endothelin-1, rapid down regulation of, in a human bronchial epithelial cell line, 221
- Calcium store, ryanodine-sensitive, in ascidian eggs monitored by whole-cell patch-clamp recordings, 93
- Calcium transients, time course of, derived from Fura-2 fluorescence measurements in single fast twitch fibres of adult mice and rat myotubes developing in primary culture, 359
- Capacitative Ca^{2+} influx in HEK 293 cells, does nitric oxide regulate? 135
- Capacitative Ca^{2+} influx, inhibition of store-dependent, by unsaturated fatty acids, 375
- Capacitative calcium entry and type 3 inositol 1,4,5-trisphosphate receptor (Review), 257
- Carbodiimide compound, a novel use for a, for the fixation of fluorescent and non-fluorescent calcium indicators *in situ* following physiological experiment, 175
- Cardiac and skeletal ryanodine receptors, nitric oxide activates, 19
- Cardiac myocytes (intact cultured), effects of temperature upon calcium exchange in, 263
- Cardiomyocytes (intact single rat), inhibition of mitochondrial calcium efflux by clonazepam in, and effects on NADH production, 321

- CCD (rat), functional evidence for the regulation of cytosolic Ca^{2+} activity via V_{IA} -receptors and b-adrenoceptors in, 163
- Cerebrocortical anoxia and ischemia, a multiparametric study of. Can the Indo-1 fluorescence approach measure brain intracellular calcium in vivo?, 115
- Charybdotoxin, inhibitory effects of K^+ channel block by, depend on the T cell activation state. Enhancement of calcium signaling and proliferation responses in activated human T lymphocytes, 1
- Chloride current (oscillatory) induced by angiotensin II in rat pulmonary arterial myocytes: Ca^{2+} dependence and physiological implication, 421
- Ciliary beating by extracellular ATP, and sustained enhancement of, protein kinase C induced calcium influx, 103
- Clonazepam, inhibition of mitochondrial calcium efflux by, in intact single rat cardiomyocytes and effects on NADH production, 321
- Confocal laser-scanning microscope, high-resolution, and flash photolysis system for physiological studies, 441
- Cytoplasmic and nucleoplasmic differences in the fluorescence properties of the calcium indicator Fluo-3, 275
- Cytoplasmic Ca^{2+} , effect of, on (1,4,5) IP_3 formation in vasopressin-activated hepatocytes, 253
- Cytoplasmic Ca^{2+} ($[\text{Ca}^{2+}]_{\text{c}}$) oscillations and $[\text{Ca}^{2+}]_{\text{t}}$ waves in rat megakaryocytes, 331
- Cytoplasmic calcium signals, Bergmann glial cells in situ express endothelin $_B$ receptors linked to, 409
- Cytosolic Ca^{2+} activity via V_{IA} -receptors and b-adrenoceptors in rat CCD, functional evidence for the regulation of, 163
- Cytosolic Ca^{2+} and excitability, the relation between basal, excitation-contraction coupling of cultured human skeletal muscle cells and, 81
- Cytosolic Ca^{2+} pulsing, two distinct Na^+ currents control, in *Xenopus laevis* pituitary melanotrophs, 241

D

- Diabetic rat, norepinephrine-mediated calcium signaling is altered in vascular smooth muscle of, 143
- Dissociation constant, determination of in situ, for Fura-2 and quantitation of background fluorescence in astrocyte cell line U373-MG, 233
- Down regulation (rapid) of Ca^{2+} signals induced by endothelin-1 in a human bronchial epithelial cell line, 221
- Drosophila trp^{sc1}* mutant, functional equivalence of native light-sensitive channels in the, and TRPL cation channels expressed in a stably transfected *Drosophila* cell, 431

E

- ECV304 endothelial cells, okadaic acid induces the release of Ca^{2+} from intracellular stores in, 461
- Endothelin-1, rapid down regulation of Ca^{2+} signals induced by, in a human bronchial epithelial cell line, 221
- Endothelin $_B$ receptors, Bergmann glial cells in situ express, linked to cytoplasmic calcium signals, 409
- Eosinophils (permeabilised), complex pattern of inhibition by Mg^{2+} of exocytosis from, 213
- Ethanol and other short chain alcohols, inhibition of hepatic inositol 1,4,5-trisphosphate receptor function by, 387
- Excitation-contraction coupling of cultured human skeletal muscle cells and the relation between basal cytosolic Ca^{2+} and excitability, 81
- Exocytosis from permeabilised eosinophils, complex pattern of inhibition by Mg^{2+} of, 213

F

- Fast twitch fibres of adult mice and rat myotubes developing in primary culture, time course of calcium transients derived from Fura-2 fluorescence measurements in single, 359
- Fatty acids (unsaturated), inhibition of store-dependent capacitative Ca^{2+} influx by, 375
- Flash photolysis system and high-resolution, confocal laser-scanning microscope for physiological studies, 441
- Fluorescence properties of the calcium indicator Fluo-3, nucleoplasmic and cytoplasmic differences in, 275
- Fluorescent and non-fluorescent calcium indicators in situ, a novel use for a carbodiimide compound for the fixation of, following physiological experiment, 175
- Fluo-3, the calcium indicator, nucleoplasmic and cytoplasmic differences in the fluorescence properties of, 275
- Functional equivalence of native light-sensitive channels in the *Drosophila trp^{sc1}* mutant and TRPL cation channels expressed in a stably transfected *Drosophila* cell, 431
- Fura-2 fluorescence measurements, time course of calcium transients derived from, in single fast twitch fibres of adult mice and rat myotubes developing in primary culture, 359
- Fura-2, determination of in situ dissociation constant for, and quantitation of background fluorescence in astrocyte cell line U373-MG, 233

G

- Gingival fibroblasts (human), bradykinin regulates the histamine-induced Ca^{2+} mobilization via protein kinase C activation in, 345
- Granulosa-luteal (isolated human) cells, mechanisms involved in ATP-evoked Ca^{2+} oscillations in, 365

H

- HEK 293 cells, does nitric oxide regulate capacitative Ca influx in?, 135
- Hepatocytes, inositol-phosphoglycan inhibits calcium oscillations in, by reducing calcium entry, 125
- Hepatocytes, vasopressin-activated, effect of cytoplasmic Ca^{2+} on (1,4,5) IP_3 formation in, 253
- High-resolution, confocal laser-scanning microscope and flash photolysis system for physiological studies, 441
- Histamine-induced Ca^{2+} mobilization, bradykinin regulates the, via protein kinase C activation in human gingival fibroblasts, 345

I

- Indo-1 fluorescence approach to measure brain intracellular calcium in vivo. A multiparametric study of cerebrocortical anoxia and ischemia, 115
- Inhibition of hepatic inositol 1,4,5-trisphosphate receptor function by ethanol and other short chain alcohols, 387
- Inositol 1,4,5-trisphosphate formation in vasopressin-activated hepatocytes, effect of cytoplasmic Ca^{2+} on, 253
- Inositol 1,4,5-trisphosphate receptor (hepatic) function, inhibition of, by ethanol and other short chain alcohols, 387
- Inositol 1,4,5-trisphosphate receptor (type 3) and capacitative calcium entry (Review), 257
- Inositol 1,4,5-trisphosphate receptor, binding and activity of the nine possible regioisomers of myo-inositol tetrakisphosphate at the, 301

- Inositol 1,4,5-trisphosphate receptors in rat, identification and characterization of, 311
- Inositol-phosphoglycan inhibits calcium oscillations in hepatocytes by reducing calcium entry, 125
- Intracellular calcium chelator BAPTA protects cells against toxic calcium overload but also alters physiological calcium responses, 453
- Intracellular stores in ECV304 endothelial cells, okadaic acid induces the release of Ca^{2+} from, 461
- Ionophore-releasable luminal Ca^{2+} stores are not required for nuclear envelope assembly or nuclear protein import in *Xenopus* egg extracts, 151
- Ischemia and anoxia (cerebrocortical), a multiparametric study of. Can the Indo-1 fluorescence approach measure brain intracellular calcium in vivo?, 115

K

- K^+ channel block by charybdotoxin, inhibitory effects of, depend on the T cell activation state. Enhancement of calcium signaling and proliferation responses in activated human T lymphocytes, 1
- Kidney cells (Madin Darby canine), synchronized Ca^{2+} oscillations induced in, by bradykinin and thrombin but not by ATP, 195

L

- La^{3+} , use of, to distinguish activity of the plasmalemmal Ca^{2+} pump from $\text{Na}^+/\text{Ca}^{2+}$ exchange in arterial myocytes, 31
- LED light calibration source for dual-wavelength microscopy, 63
- Light-sensitive channels, functional equivalence of native, in the *Drosophila* *trp*³⁰¹ mutant and TRPL cation channels expressed in a stably transfected *Drosophila* cell, 431
- Luminal Ca^{2+} stores, ionophore-releasable, are not required for nuclear envelope assembly or nuclear protein import in *Xenopus* egg extracts, 151

M

- Megakaryocytes (rat), $[\text{Ca}^{2+}]_i$ oscillations and $[\text{Ca}^{2+}]_i$ waves in, 331
- Mg^{2+} , complex pattern of inhibition by, of exocytosis from permeabilised eosinophils, 213
- Mg^{2+} , gating of the skeletal calcium release channel by ATP is inhibited by protein phosphatase 1 but not by, 283
- Microscopy, dual-wavelength, LED light calibration source for, 63
- Mitochondrial calcium efflux, inhibition of, by clonazepam in intact single rat cardiomyocytes and effects on NADH production, 321
- Myo-inositol tetrakisphosphate, binding and activity of the nine possible regioisomers of, at the inositol 1,4,5-trisphosphate receptor, 301
- Myotubes (rat) and fast twitch fibres of adult mice developing in primary culture, time course of calcium transients derived from Fura-2 fluorescence measurements in single, 359

N

- Na^+ currents (two distinct) control cytosolic Ca^{2+} pulsing in *Xenopus laevis* pituitary melanotrophs, 241
- $\text{Na}^+/\text{Ca}^{2+}$ exchange, use of La^{3+} to distinguish activity of the plasmalemmal Ca^{2+} pump from, in arterial myocytes, 31

- Na/Ca exchanger isoforms in rat pancreatic B-cells, identification, expression pattern and potential activity of, 185
- NADH production, effects on, inhibition of mitochondrial calcium efflux by clonazepam in intact single rat cardiomyocytes and, 321
- Nitric oxide activates skeletal and cardiac ryanodine receptors, 19
- Nitric oxide may regulate capacitative Ca influx in HEK 293 cells, 135
- Norepinephrine-mediated calcium signaling is altered in vascular smooth muscle of diabetic rat, 143
- Nuclear envelope assembly or nuclear protein import in, *Xenopus* egg extracts Ionophore-releasable luminal Ca^{2+} stores are not required for, 151
- Nucleoplasmic and cytoplasmic differences in the fluorescence properties of the calcium indicator Fluo-3, 275

O

- Okadaic acid induces the release of Ca^{2+} from intracellular stores in ECV304 endothelial cells, 461
- Oscillatory Cl^- current induced by angiotensin II in rat pulmonary arterial myocytes: Ca^{2+} dependence and physiological implication, 421

P

- Pancreatic B-cells (rat), identification, expression pattern and potential activity of Na/Ca exchanger isoforms in, 185
- Pituitary melanotrophs of *Xenopus laevis*, two distinct Na^+ currents control cytosolic Ca^{2+} pulsing in, 241
- Plasma membrane Ca^{2+} -ATPase expression, analysis of, in control and SV40-transformed human fibroblasts, 53
- Plasmalemmal Ca^{2+} pump, use of La^{3+} to distinguish activity of the, from $\text{Na}^+/\text{Ca}^{2+}$ exchange in arterial myocytes, use of La^{3+} to distinguish activity of the, 31
- Protein kinase C activation, bradykinin regulates the histamine-induced Ca^{2+} mobilization via, in human gingival fibroblasts, 345
- Protein kinase C induced calcium influx and sustained enhancement of ciliary beating by extracellular ATP, 103
- Protein phosphatase 1, gating of the skeletal calcium release channel by ATP is inhibited by (but not by Mg^{2+}), 283
- Pulmonary arterial myocytes (rat), oscillatory Cl^- current induced by angiotensin II in: Ca^{2+} dependence and physiological implication, 421

R

- Red cells (human), differences in Ca^{2+} pumping activity between sub-populations of, 353
- Regulation (co-ordinated) of the plasma membrane calcium pump and the sarco(endo)plasmic reticular calcium pump gene expression by Ca^{2+} , 399
- Ryanodine receptors, nitric oxide activates skeletal and cardiac, 19
- Ryanodine-sensitive calcium store in ascidian eggs monitored by whole-cell patch-clamp recordings, 93

S

- Sarco(endo)plasmic reticular calcium pump gene expression by Ca^{2+} , co-ordinated regulation of the plasma membrane calcium pump and the, 399

Sarcoplasmic reticulum [Ca^{2+}], measurement of changes in, in rat tail artery with targeted apoaequorin delivered by an adenoviral vector, 69

Skeletal and cardiac ryanodine receptors, nitric oxide activates, 19

Skeletal muscle cells, excitation-contraction coupling of cultured human, and the relation between basal cytosolic Ca^{2+} and excitability, 81

Smooth (vascular) muscle of diabetic rat, norepinephrine-mediated calcium signaling is altered in, 143

Store-dependent capacitative Ca^{2+} influx, inhibition of, by unsaturated fatty acids, 375

SV40-transformed human fibroblasts, analysis of plasma membrane Ca^{2+} -ATPase expression in control and, 53

T

T cell activation state, and inhibitory effects of K^{+} channel block by charybdotoxin depend on, (enhancement of calcium signaling and proliferation responses in activated human T lymphocytes), 1

T lymphocytes, enhancement of calcium signaling and proliferation responses in activated human, (inhibitory effects of K^{+} channel block by charybdotoxin depend on the T cell activation state), 1

Temperature dependence of agonist-stimulated Ca^{2+} signaling in cultured endothelial cells, 43

Temperature, effects of, upon calcium exchange in intact cultured cardiac myocytes, 263

Tetrakisphosphate (myo-inositol), binding and activity of the nine possible regioisomers of, at the inositol 1,4,5-trisphosphate receptor, 301

Thrombin and bradykinin (but not by ATP), synchronized Ca^{2+} oscillations induced in Madin Darby canine kidney cells by, 195

Time course of calcium transients derived from Fura-2 fluorescence measurements in single fast twitch fibres of adult mice and rat myotubes developing in primary culture, 359

TRPL cation channels expressed in a stably transfected *Drosophila* cell, functional equivalence of native light-sensitive channels in the *Drosophila* *trp*³⁰¹ mutant and, 431

V

$\text{V}_{1\text{A}}$ -receptors and β -adrenoceptors in rat CCD, functional evidence for the regulation of cytosolic Ca^{2+} activity via, 163

Vasopressin-activated hepatocytes, effect of cytoplasmic Ca^{2+} on (1,4,5) IP_3 formation in, 253

X

Xenopus egg extracts, ionophore-releasable luminal Ca^{2+} stores are not required for nuclear envelope assembly or nuclear protein import in, 151

Xenopus laevis pituitary melanotrophs, two distinct Na^{+} currents control cytosolic Ca^{2+} pulsing in, 241

Author index to Volume 21

A

Abdel-Hamid KM, 175
Albrieux M, 93
Ankorina-Stark I, 163
Anno PR, 19
Antoine AF, 93
Arnoult C, 93

B

Bakker AJ, 359
Beach JM, 63
Benders AAGM, 81
Benedetti A, 375
Bernstein GM, 175
Bielefeld DR, 143
Bird GSTJ, 253
Bischof G, 135
Blaustein MP, 31
Borin ML,
Braiman A, 103
Brandt P, 53
Brinkmeier H, 453
Buchan AMJ, 365
Burford NT, 301

C

Callamaras N, 441
Camerer E, 195
Campbell AK, 69
Carlen PL, 175
Chang Y-T, 301
Chung S-K, 301
Clapham DE, 275
Cobbold PH, 125
Cohen RM, 143
Collatz MB, 453

D

Devignot V, 1
Droogmans G, 291

E

Ewert M, 221

F

Fein A, 331
Ferguson DG, 143
Fleischer S, 283
Fulceri R, 375
Furuyama S, 345

G

Gamberucci A, 375
Gant TM, 151
Gil B, 125
Godfrey RE, 311
Gomperts BD, 213
Graier WF, 43
Greenwood MR, 125
Griffiths EJ, 321
Grunwald D, 93
Guibert C, 421

H

Haburcák M, 291
Haigney MCP, 321
Hardie RC, 431
Haxelmans S, 163
Head SI, 359
Hepworth TJ, 461
Herchuelz A, 185
Hughes PJ, 311

I

Iversen J-G, 195

J

Jones OT, 175

K

Kendall JM, 69
Kettenmann H, 409
Kim Y-M, 19
Kirchhoff F, 409
Kirischuk S, 409
Korn H, 1
Kovach AGB, 115
Kuo TH, 399

L

Langer GA, 263
Lansdell SJ, 431
Larbi KY, 213
Lawrie AM, 461
Le Deist F, 1
Lee PSN, 365
Leung PCK, 365
Levin R, 103
Liefeldt L, 409
Ligeti L, 115
Lin Wei L, 291

Liu B-F, 399
Lorenz JN, 143

M

Machen TE, 135
Marengo FD, 263
Marrero I, 125
Marshall ICB, 151
Marthan R, 421
Marty I, 93
Mathiesen I, 195
Mato JM, 125
Mayevsky A, 115
McLaughlin AC, 115
Meyer T, 221
Mezna M, 311
Michelangeli F, 311
Mikoshiba K, 311
Millar NS, 431
Minchin SD, 311
Murphy T, 19

N

Nahorski SR, 301
Nakao S, 345
Niisato N, 345
Nilius B, 291

O

Obie JF, 253
Ocampo CJ, 321
Ogata Y, 345
Oles M, 221
Oosterhof A, 81

P

Paltauf-Doburzynska J, 43
Parker I, 441
Paul M, 409
Perez-Terzic C, 275
Petr MJ, 233
Pott L, 221
Prenen J, 291
Priel Z, 103
Prydz H, 195
Pun RYK, 143
Putney Jr JW, 253, 257

R

Raeymaekers L, 399
Razavi H, 175

Reisner PD, 53
Rembold CM, 69
Renard-Rooney DC, 387
Reuss H, 431
Romero EA, 353
Romero PJ, 353
Röttingen J-A, 195
Rüdel R, 453
Ruttner Z, 115

S

Salama G, 19
Sanchez-Bueno A, 125
Sattler R, 175
Savineau J-P, 421
Schindler H, 283
Schlatter E, 163
Seitz MB, 387
Serwold TF, 135
Shimizu H,
Silverman HS, 321
Simpson AWM, 461
Sonnleitner A, 283

Squires PE, 365
Stehno-Bittel L, 275
Stephenson DG, 359
Stern MD, 321
Stoyanovsky D, 19
Sugiya H, 345
Svoboda M, 185

T

Tam ESL, 143
Tertyshnikova S, 331
Thomas AP, 387
Tovey SC, 311
Tsang W, 399
Tuschick S, 409
Tymianski M, 175

V

Valentijn JA, 241
Valentijn K, 241
Van Eylen F, 185
Vanaman TC, 53

Varela-Nieto I, 125
Veerkamp JH, 81
Velumian A, 175
Verheugen JAH, 1
Verkhatsky A, 409
Viana F, 291
Villaz M, 93

W

Wang S-Y, 263
Wei S-K, 321
Wevers RA, 81
Wier WG, 441
Wilcox RA, 301
Wilson KL, 151
Wurster RD, 233
Wuytack F, 399

Y

Yu Y, 399
Yuen BH, 365

